WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Thursday, September 30, 2004

Hide?	Set Name	Query	Hit Count
		DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ	
☐	L11	pyrophosphorylase and glycosyltransferase.clm.	19
☐	L10	GalNAc kinase and glycosyltransferase.clm.	3
☐	L9	GalNAc kinase and osyltransferase.clm.	0
☐	L8	GalNAc kinase and osyltransferase.clm.	0
☐	L7	pyrophosphorylase and glycosyltransferase.clm.	19
☐	L6	GalNAc kinase with glycosyltransferase.clm.	0
☐	L5	GalNAc kinase with glycosyltransferase.clm	0
☐	L4	(GalNAc kinase or pyrophosphorylase or phosphomannomutase) and glycosyltransferase	149
☐	L3	L2 and vector	73
☐	L2	L1 and glycoconjugate?	100
☐	L1	(Ga1K or GalT or GalU or Pykf or Ndk or PpK or AcK or PoxB or Ppa or PgM or NagE or Agml or glmu or GalNAc kinase or pyrophosphorylase or Ugd or NanA or Cmk or NeuA or A1g2 or Algl or SusA or ManB or ManC or phosphomannomutase or Ga1E or GMP or GMD)and glycosyltransferase	513

END OF SEARCH HISTORY

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Search Results - Record(s) 51 through 60 of 100 returned.

☐ 51. 6689604. 18 Mar 99; 10 Feb 04. Lipopolysaccharide .alpha.-2,3 sialyltransferase of Campylobacter jejuni and its uses. Gilbert; Michel, et al. 435/320.1; 435/252.3 435/252.33 435/346 435/6 435/68.1 435/69.1 435/69.3 435/70.2 435/71.1 435/71.2 435/74 435/822 514/54 536/23.1 536/23.2 536/24.3. C12N015/00.

☐ 52. 6645725. 19 Apr 01; 11 Nov 03. Diagnostic assay for endometriosis. Yeaman; Grant R.. 435/7.1; 435/7.92 435/7.93 435/7.94 436/501 436/518. G01N033/53.

☐ 53. 6602684. 20 Apr 99; 05 Aug 03. Glycosylation engineering of antibodies for improving antibody-dependent cellular cytotoxicity. Umana; Pablo, et al. 435/69.1; 435/320.1 435/455 536/23.1 536/24.1. C12P021/00 C12N015/63 C12N015/85 C07H021/04.

☐ 54. 6559294. 23 Nov 98; 06 May 03. Chlamydia pneumoniae polynucleotides and uses thereof. Griffais; Remy, et al. 536/23.1; 435/320.1 435/69.1 435/70.1 536/24.1. C07H021/02 C07H021/04 C12P021/06 C12P021/04 C12N015/00.

☐ 55. 6528274. 03 Sep 99; 04 Mar 03. Method for the production of sialylated oligosaccharides. Palcic; Monica Marija, et al. 435/15; 435/101 435/72 435/74 435/84 435/97. C12Q001/48 C12P019/18.

☐ 56. 6503744. 31 Jan 00; 07 Jan 03. Campylobacter glycosyltransferases for biosynthesis of gangliosides and ganglioside mimics. Gilbert; Michel, et al. 435/193; 435/183 435/252.3 435/320.1 536/23.2. C12N009/10 C12N009/00 C12N001/20 C12N015/00.

☐ 57. 6500661. 14 Jan 99; 31 Dec 02. Enzymatic conversion of GDP-mannose to GDP-fucose. Sjoberg; Eric R.. 435/233; 435/183 435/189 435/191 435/194 435/195. C12N009/90 C12N009/02 C12N009/06 C12N009/12 C12N009/14.

☐ 58. 6465434. 23 Nov 99; 15 Oct 02. Methods and compositions for the inhibition of cancer metastasis mediated by endothelial adhesion molecules. Magnani; John L., et al. 514/23; 514/53 514/54 514/61. A01N043/04.

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☐ 60. 6406894. 11 Dec 97; 18 Jun 02. Process for preparing polyvalent and physiologically degradable carbohydrate-containing polymers by enzymatic glycosylation reactions and the use thereof for preparing carbohydrate building blocks. Hoersch; Brigitte, et al. 435/97; 435/100 435/101 525/32.2 536/102 536/123.1 536/124 536/126 536/17.2 536/18.5 536/18.7 536/20 536/21 536/4.1 536/55 536/55.1 536/55.2 536/55.3. C12P019/18 C07H007/00 C07H003/06.

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Terms	Documents
L1 and glycoconjugate?	100

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Search Results - Record(s) 71 through 80 of 100 returned.

☐ 71. 5939290. 19 May 95; 17 Aug 99. Modified sialyl Lewis.sup.x compounds. Venot; Andre P., et al. 435/74; 435/193 435/73 435/75 435/85. C12P019/44.

☐ 72. 5929036. 06 Jun 95; 27 Jul 99. Ligand or GMP-140 selectin and methods of use thereof. McEver; Rodger P.. 514/25; 514/21 514/23 530/395 530/396 530/402 530/403. C07K001/00.

☐ 73. 5925349. 19 Aug 97; 20 Jul 99. Treating inflammation via the administration of specific sulfatase enzymes and/or sulfation inhibitor. Rosen; Steven D., et al. 424/94.61; 424/662 424/702 424/94.1 424/94.6 435/196 435/200. A61K038/47 A61K038/43 A61K033/04 A61K033/20.

☐ 74. 5910570. 11 Nov 97; 08 Jun 99. Cloned DNA encoding a UDP-GalNAc: polypeptide N-acetylgalactosaminy-ltransferase. Elhammer; Ake P., et al. 530/328; 435/193. C07K007/06 C12N009/10.

☐ 75. 5882901. 26 May 95; 16 Mar 99. Modified sialyl Lewis.sup.a compounds. Venot; Andre P., et al. 435/73; 435/74 435/85. C12P019/64 C12P019/44 C12P019/28.

☐ 76. 5872096. 20 Oct 94; 16 Feb 99. Modified sialyl Lewis.sup.a compounds. Venot; Andre P., et al. 514/8; 514/23 514/25 514/60 530/322 536/1.11 536/17.2 536/17.9 536/18.7 536/22.1. A61K038/16 A61K031/70 C07K009/00 C07M015/00.

☐ 77. 5866378. 07 Oct 96; 02 Feb 99. Process for the synthesis of nucleotide-6-deoxy-D-xylo-4-hexuloses. Marquardt; Ruediger, et al. 435/105; 435/101 435/174 435/175 435/180 435/89 435/90 536/124 536/22.1. C12P019/02 C12P019/30 C12P019/04 C12N011/18.

☐ 78. 5834251. 30 Dec 94; 10 Nov 98. Methods of modifying carbohydrate moieties. Maras; Marleen, et al. 435/71.1; 435/171 435/68.1 435/69.1 435/72 435/85 435/97 435/99. C12P021/00 C12P019/18 C12P001/02.

☐ 79. 5833990. 17 Feb 95; 10 Nov 98. Anti-inflammatory, tolerogenic and immunoinhibiting properties of carbohydrate binding peptides. Heerze; Louis D., et al. 424/185.1; 424/184.1 424/240.1 424/282.1 514/885 530/350 530/868. C07K007/06 C07K001/00 A61K037/02 A61K038/00.

☐ 80. 5770420. 08 Sep 95; 23 Jun 98. Methods and products for the synthesis of oligosaccharide structures on glycoproteins, glycolipids, or as free molecules, and for the isolation of cloned genetic sequences that determine these structures. Lowe; John B., et al. 435/193; 435/252.3 435/320.1 435/325 536/23.2 536/23.4. C12N009/10 C12N001/20 C12N015/00 C12N005/00.

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Terms	Documents
L1 and glycoconjugate?	100

Prev Page Next Page Go to Doc#

L10: Entry 3 of 3 File: PGPB Jan 3, 2002

DOCUMENT-IDENTIFIER: US 20020001831 A1
TITLE: Low cost manufacture of oligosaccharides

Detail Description Table CWU:
1TABLE 1 Cycle Enzymes.sup.1 .sup.1Each of the cycle processes listed below requires either a nucleotide triphosphate source or the enzymes required to regenerate the nucleotide to its nucleotide triphosphate form. GLcNAc Cycle GalNAc Cycle-1 UDP-GLcNAc Pyrophosphorylase UDP-GalNAc Epimerase GLcNAc/GalNAc Kinase UDP-GlcNAc Pyrophosphorylase GlcNAc Transferase GlcNAc 1-Phospho Kinase* Gal Cycle-1 * (or Hexokinase and GlcNAc Gal kinase Phosphomutase) UDP-Gal Pyrophosphorylase GlcNAc Transferase Gal Transferase GalNAc Cycle- Gal Cycle-2 UDP-GalNAc Pyrophosphorylase UDP-Gal 4'-Epimerase GlcNAc Transferase UDP-Glc Pyrophosphorylase GlcNAc/GalNAc kinase Hexokinase Kinase Man Cycle Phosphoglucomutase GDP-Man Pyrophosphorylase ST Cycle Hexokinase ST fusion (sialyltransferase Phosphomannomutase fused CMP-SA synthetase)* Man Transferase *(or sialyltransferase and Fuc Cycle-2 CMP-SA synthetase) GDP-Fuc Pyrophosphorylase NeuAc Aldolase Fucose 1-phosphokinase GlcNAc Epimerase Fucosyl Transferase Fuc Cycle-1 GDP-Fuc Epimerase/reductase GDP-Fuc Dehydratase GDP-Man Pyrophosphorylase Hexokinase Phosphomannomutase Fucosyl Transferase

CLAIMS:

1. A reaction mixture for producing a product saccharide, wherein the reaction mixture comprises an acceptor saccharide and a first type of plant or microorganism cell that produces: a) a nucleotide sugar, and b) a first recombinant glycosyltransferase that catalyzes the transfer of a sugar from the nucleotide sugar to the acceptor saccharide to form the product saccharide.

4. The reaction mixture of claim 1, wherein the glycosyltransferase is a fucosyltransferase and the nucleotide sugar is GDP-fiucose.

5. The reaction mixture of claim 1, wherein the glycosyltransferase is a sialyltransferase and the nucleotide sugar is CMP-sialic acid

12. The reaction mixture of claim 11, wherein the recombinant glycosyltransferase is a sialyltransferase, the nucleotide sugar is CMP-sialic acid and the heterologous gene encodes CMP-sialic acid synthetase.

14. The reaction mixture of claim 11, wherein the recombinant glycosyltransferase is a .beta.1,4-GalNAc transferase and the nucleotide sugar is UDP-GalNAc.

16. The reaction mixture of claim 11, wherein the recombinant glycosyltransferase is a galactosyltransferase and the nucleotide sugar is UDP-Gal.

24. The reaction mixture of claim 1, wherein the first type of cell produces a second recombinant glycosyltransferase that catalyzes the transfer of a sugar from the nucleotide sugar to the product saccharide to form a further glycosylated product saccharide.

25. The reaction mixture of claim 24, wherein the nucleotide sugar is UDP-Gal, the first recombinant glycosyltransferase is an .beta.1,4-galactosyltransferase and the second recombinant glycosyttransferase is an .alpha.1,3-galactosyltransferase.

28. The reaction mixture of claim 1, wherein the cell further comprises: a) an enzymatic system for producing at least a second nucleotide sugar, and b) at least a second recombinant glycosyltransferase that catalyzes transfer of a sugar from the second nucleotide sugar to the product sugar.

29. The reaction mixture of claim 28, wherein: the first recombinant glycosyltransferase is a GlcNAc transferase and the first nucleotide sugar is UDP-GlcNAc; and the second recombinant glycosyltransferase is a galactosyltransferase and the second nucleotide sugar is UDP-galactose.

31. The reaction mixture of claim 1, wherein the reaction mixture also comprises at least a second type of cell that produces a) a second nucleotide sugar, and b) a second recombinant glycosyltransferase that catalyzes the transfer of the sugar from the second nucleotide sugar to the product saccharide.

32. The reaction mixture of claim 31, wherein the first glycosyltransferase is a galactosyltransferase and the second glycosyltransferase is a GalNAc transferase.

40. A cell that produces a product saccharide, wherein the cell comprises: a) a recombinant gene that encodes a glycosyltransferase; b) an enzymatic system for forming a nucleotide sugar that is a substrate for the glycosyltransferase; and c) an exogenous saccharide acceptor moiety; wherein the glycosyltransferase catalyzes the transfer of a sugar from the nucleotide sugar to the acceptor moiety to produce the product saccharide.

42. The cell of claim 40, wherein the recombinant gene that encodes a glycosyltransferase is a heterologous gene.

45. The cell of claim 44, wherein the deficiency is due to a reduced level of a polysaccharide glycosyltransferase activity.

53. A method of producing a product saccharide, the method comprising contacting a microorganism or plant cell with an acceptor saccharide, wherein the cell comprises: a) an enzymatic system for forming a nucleotide sugar; and b) a recombinant glycosyltransferase which catalyzes the transfer of a sugar from the nucleotide sugar to the acceptor saccharide to produce the product saccharide.

54. The method of claim 53, wherein the glycosyltransferase is encoded by a heterologous gene.

55. The method of claim 53, wherein the glycosyltransferase is encoded by a gene that is endogenous to the cell and is produced by the cell at an elevated level compared to a wild-type cell.

61. The method of claim 59, wherein the enzyme for forming a nucleotide sugar and the glycosyltransferase are expressed as a fusion protein.

65. The method of claim 53, wherein the nucleotide sugar is GDP-fucose and the glycosyltransferase is a fucosyltransferase.

68. The method of claim 67, wherein the deficiency is due to a reduced level of a polysaccharide glycosyltransferase activity.

70. The method of claim 53, wherein the cell is Azotobacter vinelandii, the nucleotide sugar is GDP-mannose, the acceptor saccharide is lactose, the

glycosyltransferase is manmosyl transferase, and the product saccharide is mannosyl lactose.

71. The method of claim 53, wherein the cell is E. coli, the nucleotide sugar is CMP-sialic acid, the acceptor saccharide is lactose, the glycosyltransferase is a sialyltransferase, and the product saccharide is sialyllactose.

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L11: Entry 16 of 19 File: USPT Feb 8, 2000

US-PAT-NO: 6022713
DOCUMENT-IDENTIFIER: US 6022713 A
**** See image for Certificate of Correction ****

TITLE: Process for producing nucleoside 5'-triphosphates and application of the same

DATE-ISSUED: February 8, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Noguchi; Toshitada	Choshi			JP
Shiba; Toshikazu	Sapporo			JP

US-CL-CURRENT: 435/89; 435/72, 435/84, 435/97

CLAIMS:

It is claimed:

1. A process for producing a nucleoside 5'-triphosphate (NTP) from a nucleoside 5'-diphosphate (NDP) other than adenosine 5'-diphosphate (ADP), comprising reacting a polyphosphate kinase with NDP and a polyphosphate, said polyphosphate serving as a phosphate donor.

2. A process for regenerating a NTP from a NDP, other than ADP, that have been produced from another enzymatic process, comprising reacting a polyphosphate kinase with NDP produced from another enzymatic process and a polyphosphate, said polyphosphate serving as a phosphate donor.

3. A process for glycosylating an acceptor sugar, comprising reacting a glycosyltransferase with a sugar nucleotide and an acceptor sugar to form the glycosylated acceptor sugar, said sugar nucleotide being produced from NTP which is produced by reacting a polyphosphate kinase with a nucleoside 5'-monophosphate (NMP) or NDP produced from the glycosylation reaction and a polyphosphate, said polyphosphate serving as a phosphate donor.

4. A process for recycling a NMP or a NDP, other than ADP, that have been produced from an enzymatic reaction, to a NTP, comprising reacting a polyphosphate kinase with NMP or NDP produced from an enzymatic reaction and a polyphosphate, said polyphosphate serving as a phosphate donor.

5. The process according to claim 3, wherein the glycosyltransferase is galactosyltransferase, glucosyltransferase, fucosyltransferase, mannosyltransferase, glucuronyltransferase, sialyltransferase, N-acetylgalactosaminyltransferase, or N-acetylglucosaminyl transferase; and the glycosylated acceptor sugar is an acceptor sugar adduct with galactose, glucose, fucose, mannose, glucuronic acid, sialyic acid, N-

acetylgalactosamine, or N-acetylglucosamine.

6. The process according to claim 3, wherein the sugar nucleotide is produced from NTP by reacting the NTP with NDP-glycosylpyrophosphorylase and sugar 1-phosphate, and optionally further with epimerase, dehydrogenase, or synthetase.

7. The process according to claim 5, wherein the sugar nucleotide is produced from NTP by reacting the NTP with NDP-glycosylpyrophosphorylase and sugar 1-phosphate, and optionally further with epimerase, dehydrogenase, or synthetase.

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=> s (GalK or GalT or GalU or Pykf or Ndk or PpK or AcK or PoxB or Ppa or PgM or NagE or Ag
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                OR MANB OR MANC OR PHOSPHOMANNOMUTASE OR GA1E OR GMP OR GMD)
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L5           10 L3 AND 1985-2001/PY

=> d l5 1-10 ibib ab

L5   ANSWER 1 OF 10  HCAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         2001:526200  HCAPLUS
DOCUMENT NUMBER:          135:133123
TITLE:                    Everninomicin biosynthetic genes in Micromonospora
                          carbonacea
INVENTOR(S):              Hosted, Thomas J.; Horan, Ann C.; Wang, Tim X.
PATENT ASSIGNEE(S):       Schering Corporation, USA
SOURCE:                   PCT Int. Appl., 109 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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     WO 2001051639        A2    20010719    WO 2001-US1187         20010112 <--
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            BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     US 2004101832        A1    20040527    US 2001-758759         20010111
PRIORITY APPLN. INFO.:                      US 2000-175751P     P  20000112
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AB This invention is directed to nucleic acids which encode the proteins that direct the synthesis of the orthosomycin everninomicin and to use of the nucleic acids and proteins to produce compds. exhibiting antibiotic activity based on the everninomicin structure. The DNA sequence for the gene clusters responsible for encoding everninomicin biosynthetic genes, which provide the machinery for producing everninomicin, are provided. Thus, this invention provides the nucleic acid sequences needed to synthesize novel everninomicin related compds. based on everninomicin, arising from modifications of the DNA sequence designed to change glycosyl and modified orsellinic acid groups contained in everninomicin. A Micromonospora site-specific integrase gene is also provided, which can be incorporated in a **vector** for integration into any actinomycete, and, particularly into Monospora. Thus, the invention further provides methods for introducing for introducing heterologous genes into an actinomycete chromosome using this particular **vector**.

```
L5   ANSWER 2 OF 10  HCAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:        1999:405071  HCAPLUS
DOCUMENT NUMBER:         131:41527
TITLE:                   Fusion proteins for use in enzymatic synthesis of
                         oligosaccharides
INVENTOR(S):             Gilbert, Michel; Young, N. Martin; Wakarchuk, Warren
                         W.
PATENT ASSIGNEE(S):      National Research Council of Canada, Can.
SOURCE:                  PCT Int. Appl., 63 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

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     US 2003180928        A1    20030925    US 2002-317773         20021211
     US 2003186414        A1    20031002    US 2002-317428         20021211
PRIORITY APPLN. INFO.:                      US 1997-69443P      P  19971215
                                            US 1998-211691      A  19981214
                                            WO 1998-CA1180      W  19981215
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AB This invention provides fusion polypeptides that include a **glycosyltransferase** catalytic domain and a catalytic domain from

an accessory enzyme that is involved in making a substrate for a **glycosyltransferase** reaction. Nucleic acids that encode the fusion polypeptides are also provided, as are host cells for expressing the fusion polypeptides of the invention. Thus, using genes cloned from Neisseria meningitidis, a fusion protein which had both CMP-Neu5Ac synthetase and .alpha.-2,3-sialyltransferase activities was prepd. This chimeric enzyme was produced in high yields in Escherichia coli and functionally pure enzyme was obtained using a simple protocol. In small-scale enzymic syntheses, the fusion enzyme sialylated various oligosaccharide acceptors (branched and linear) with Neu5Ac as well as N-glycolyl- and N-propionyl-neuraminic acid in high yield. The chimeric enzyme was also used to produce .alpha.-2,3-sialyllactose at the 100 g scale using a sugar nucleotide cycle reaction, starting from lactose, sialic acid, PEP and catalytic amts. of ATP and CMP.

L5 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:526296 HCAPLUS
DOCUMENT NUMBER: 121:126296
TITLE: Expression of soluble active human .beta.1,4-galactosyltransferase in Saccharomyces cerevisiae
AUTHOR(S): Kleene, Ralf; Krezdorn, Christian H.; Watzele, Gabriele; Meyhack, Bernd; Herrmann, Guido F.; Wandrey, Christian; Berger, Eric G.
CORPORATE SOURCE: Physiol. Inst., Univ. Zurich, Zurich, CH-8057, Switz.
SOURCE: Biochemical and Biophysical Research Communications (**1994**), 201(1), 160-7
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Sequences coding for the cytoplasmic and transmembrane domains were removed from the cDNA of the human Golgi resident membrane protein .beta.1,4 galactosyltransferase (**galT**). The remaining sequences coding for the stem and catalytic domains of this **glycosyltransferase** were fused to sequences coding for the yeast invertase signal sequence. The hybrid was inserted together with a constitutive yeast promoter and a terminator into an Escherichia coli/yeast shuttle **vector**. Saccharomyces cerevisiae strain BT150 transformed with this new expression **vector** expressed enzymically active sol. enzyme, whereas no activity was detectable in mock-transformed yeasts. The enzyme product was identified by HPLC anal. and shown to correspond to the expected product N-acetyllactosamine.

L5 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:186950 HCAPLUS
DOCUMENT NUMBER: 118:186950
TITLE: Substituted oligosaccharide as substrates and inhibitors for glycosyltransferases and glycosidases and their enzymic synthesis
INVENTOR(S): Wong, Chi Huey; Ichikawa, Yoshitaka; Shen, Gwo Jenn
PATENT ASSIGNEE(S): Scripps Research Institute, USA
SOURCE: PCT Int. Appl., 157 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

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			WO 1992-US2178	A	19920317
			US 1992-889652	B1	19920526
			US 1994-219242	A3	19940329
			US 1995-472877	A1	19950607

OTHER SOURCE(S): MARPAT 118:186950

AB Substituted oligosaccharides that are substrates for some glycosyltransferases and glycosidases and inhibitors for others are prepd. for use in the control of enzymic synthesis of oligosaccharides. The system uses an acceptor saccharide; a donor monosaccharide; an activating nucleotide suitable for the monosaccharide; an activated donor monosaccharide regenerating system; a pyrophosphate scavenger, and a **glycosyltransferase**. Several rounds of enzymic synthesis can be conducted as necessary. (2R)-methyl-(3R,4R,5S)-trihydroxypiperidine(I) was prepd. by the aldolase-catalyzed reaction of HCl-hydrolyzed (R)-3-azido-2-hydroxypropanal di-Et acetal and dihydroxyacetone phosphate. I was then reduced with Pd in the presence of HCHO to yield (1,2R)-dimethyl-(3R,4R,5S)-trihydroxypiperidine (II) or oxidized with H2O2 to give (1,2R)-dimethyl-(3R,4R,5S)-trihydroxypiperidine oxide (III). I inhibited brewer's yeast .alpha.-glucosidase and sweet almond .beta.-glucosidase with Ki's of 1.56.times.10-3 and 7.8.times.10-4 M resp. II inhibited brewer's yeast .alpha.-glucosidase and sweet almond .beta.-glucosidase with Ki's of 1.78.times.10-3 and 1.4.times.10-4 M resp. III inhibited brewer's yeast .alpha.-glucosidase and sweet almond .beta.-glucosidase with Ki's of 6.95.times.10-3 and 1.49.times.10-3 M resp.

L5 ANSWER 5 OF 10 BIOSIS on STN

ACCESSION NUMBER: 2001:562863 BIOSIS
DOCUMENT NUMBER: PREV200100562863
TITLE: Viral **vector**-mediated delivery of **glycosyltransferase** genes to rat cerebellar cells modifies glycoconjugate expression cell specifically.
AUTHOR(S): Smith, Frances I. [Reprint author]; Baboval, Thia [Reprint author]; Liang, ShuLing [Reprint author]
CORPORATE SOURCE: Shriver Center for Mental Retardation, Waltham, USA
SOURCE: Glycobiology, (October, 2001) Vol. 11, No. 10, pp. 910-911. print.
Meeting Info.: 6th Annual Conference of the Society for Glycobiology. San Francisco, California, USA. November 14-17, 2001.
ISSN: 0959-6658.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Dec 2001
Last Updated on STN: 25 Feb 2002

L5 ANSWER 6 OF 10 BIOSIS on STN

ACCESSION NUMBER: 2000:459898 BIOSIS
DOCUMENT NUMBER: PREV200000459898
TITLE: Production of alpha-galactosyl epitopes via combined use of two recombinant whole cells harboring UDP-galactose 4-epimerase and alpha-1,3-galactosyltransferase.
AUTHOR(S): Chen, Xi [Reprint author]; Zhang, Wei [Reprint author]; Wang, Jianqiang [Reprint author]; Fang, Jianwen [Reprint author]; Wang, Peng George [Reprint author]
CORPORATE SOURCE: Department of Chemistry, Wayne State University, Detroit, MI, 48202, USA
SOURCE: Biotechnology Progress, (July-August, 2000) Vol. 16, No. 4, pp. 595-599. print.
CODEN: BIPRET. ISSN: 8756-7938.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 25 Oct 2000
Last Updated on STN: 10 Jan 2002

AB alpha-Galactosyl epitopes (or alpha-Gal, oligosaccharides with a terminal Galalpha1,3Gal sequence) are a class of biologically important oligosaccharides in great demand in bulk quantities for basic and clinical studies on preventing hyperacute rejection in pig-to-primate organ xenotransplantaion. A truncated bovine alpha-1,3-galactosyltransferase, the key enzyme responsible for the biosynthesis of the terminal structure of alpha-Gal, was cloned and overexpressed previously. The acceptor specificity was further studied in the present paper, and lactose and galactose derivatives were found to be good acceptors. To develop a more proficient reaction process, we report herein an example of an efficient enzymatic synthesis of alpha-Gal oligosaccharides catalyzed by the combination of two recombinant Escherichia coli whole cells harboring the genes of a UDP-galactose 4-epimerase and the alpha-1,3-galactosyltransferase, respectively. Using lactosyl azide (LacN3) as the acceptor for the **glycosyltransferase**, the combined use of the two recombinant cells efficiently produced alpha-Gal epitope Galalpha1,3LacN3 in 60-68% yield.

L5 ANSWER 7 OF 10 BIOTECHDS on STN

ACCESSION NUMBER: 1998-08605 BIOTECHDS
TITLE: Glycosylation of saccharides;
enzyme-inhibitor synthesis using enzyme e.g. recombinant CMP-sialic-acid-synthetase
AUTHOR: Wong C H; Ichikawa Y; Shen G J
PATENT ASSIGNEE: Scripps-Res.Inst.
LOCATION: La Jolla, CA, USA.
PATENT INFO: US 5759823 **2 Jun 1998**
APPLICATION INFO: US 1995-472877 7 Jun 1995
PRIORITY INFO: US 1995-472877 7 Jun 1995
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 1998-332139 [29]

AB A new glycosylation method involves reacting an activated donor monosaccharide with an acceptor saccharide in an aq. medium in the presence of a catalytic amount of a **glycosyltransferase** having a specificity for both the donor and acceptor. Also new are: a method for synthesizing sialic acid-alpha-2,6-galactose-beta-1,4-N-acetylglucosamine using NeuAc aldolase (NA), pyruvate-kinase (PK), nucleoside-monophosphate-kinase (NMK), inorganic-pyrophosphatase (IP), galactosyltransferase (EC-2.4.1.22) (GT), UDP-glucose-**pyrophosphorylase** (EC-2.7.7.9) (UGP), UDP-galactose-4-epimerase (EC-5.1.3.2) (UGE), CMP-NeuAc-synthetase (CNAS) and alpha(2,6)sialyltransferase (AST); synthesis of sialyl Lewis X using NA, PK, NMK, IP, GT, UGE, UGP, CNAS and AST, GDP-fucosyl-**pyrophosphorylase** or alpha-1,3-fucosyltransferase; and a method for synthesis of sialylated acceptor saccharide using NA, NMK, IP, CNAS

or silayltransferae. An Escherichia coli transformed with a phagemid CMPSIL-1 containing a gene for a modified CMP-sialic-acid-synthetase is disclosed, where the transformed E. coli is deposited as ATCC 68531. (53pp)

L5 ANSWER 8 OF 10 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
ACCESSION NUMBER: 1998-07441 BIOTECHDS
TITLE: Dual bacterial promoter for increasing expression of heterologous polypeptide;
recombinant **vector** expression in Escherichia coli
AUTHOR: Schultz J; Hermanson G
PATENT ASSIGNEE: Cytel
LOCATION: San Diego, CA, USA.
PATENT INFO: WO 9820111 **14 May 1998**
APPLICATION INFO: WO 1997-US20528 7 Nov 1997
PRIORITY INFO: US 1996-29545 8 Nov 1996
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 1998-286927 [25]
AB A new recombinant nucleic acid construct (I) contains a dual bacterium high expression promoter linked to a sequence encoding a target protein, where the promoter contains tac and gal promoter components. Also new are **vectors** containing (I) plus a selectable marker, especially kanamycin-resistance, a recombinant construct containing a Streptococcus thermophilus UDPglucose-4-epimerase (EC-5.1.3.2) promoter linked to the target gene, and bacterium cells, preferably Escherichia coli, containing the recombinant **vector**, which are used to express the target protein, particularly various enzymes required for the synthesis of oligosaccharides, and also hormones, growth factors, virus antigens, cytokines, etc. Also contemplated is the expression of antisense RNA from the target gene. A specific **vector** is plasmid pTGK (ATCC 98059). The target protein is preferably N-acylneuraminate-cytidylyltransferase (EC-2.7.7.43), UTP-glucose-1-phosphate-uridylyltransferase (EC-2.7.7.9), adenylate-kinase (EC-2.7.4.3), pyruvate-kinase (EC-2.7.1.40), sialic-acid-aldolase, **glycosyltransferase** or UDP-GlcNAc-**pyrophosphorylase**. (43pp)

L5 ANSWER 9 OF 10 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
ACCESSION NUMBER: 1998-00357 BIOTECHDS
TITLE: Nucleic acids encoding GDP-fucose-**pyrophosphorylase**
;
recombinant enzyme production for use in carbohydrate production
PATENT ASSIGNEE: Cytel; Ketcham C M
LOCATION: San Diego, CA, USA; Encinitas, CA, USA.
PATENT INFO: WO 9737683 **16 Oct 1997**
APPLICATION INFO: WO 1997-US5968 10 Apr 1997
PRIORITY INFO: US 1997-831590 9 Apr 1997; US 1996-15241 10 Apr 1996
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 1997-512415 [37]
AB Nucleic acid (I) (2,318 bp DNA sequence disclosed) encoding human GDP-fucose-**pyrophosphorylase** (II) (595 amino acid protein sequence disclosed) is claimed. Also claimed is (II); and a preparation capable of catalyzing the reaction of GTP and fucose-1-phosphate to GDP-fucose and PPi. Cells can be genetically engineered to contain the nucleic acids, e.g. promoter operably linked to the nucleic acid and the promoter selected for direct expression in a desired cell, especially a mammalian, insect or fungal cell (claimed). (II) enzymes encoded by (I) (especially with mol.wt. 66 kDa) can be included in compositions (claimed) and used for synthesis of carbohydrate molecules of defined structures, useful in investigating the role of carbohydrates as recognition elements on cell surfaces. They are especially useful in

producing donor substrates (e.g. GDP-fucose) in reactions of a **glycosyltransferase**. (II) can also be used to raise antibodies for detecting (II). Oligonucleotides hybridizing to (I) are also new. (33pp)

L5 ANSWER 10 OF 10 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
ACCESSION NUMBER: 1998-00356 BIOTECHDS
TITLE: Nucleic acids encoding GDP-fucose-**pyrophosphorylase**
;
recombinant enzyme production for use in carbohydrate production
PATENT ASSIGNEE: Cytel; Ketcham C M
LOCATION: San Diego, CA, USA; Encinitas, CA, USA.
PATENT INFO: WO 9737682 **16 Oct 1997**
APPLICATION INFO: WO 1997-US5876 9 Apr 1997
PRIORITY INFO: US 1996-15241 10 Apr 1996
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 1997-512414 [37]
AB Nucleic acid (I) encoding human GDP-fucose-**pyrophosphorylase** (II) is claimed. Also claimed is (II); and a preparation capable of catalyzing the reaction of GTP and fucose-1-phosphate to GDP-fucose and PPi. Cells can be genetically engineered to contain the nucleic acids, e.g. promoter operably linked to the nucleic acid and the promoter selected for direct expression in a desired cell, especially a mammalian, insect or fungal cell (claimed). (II) enzymes encoded by (I) (especially with mol.wt. 66 kDa) can be included in compositions (claimed) and used for synthesis of carbohydrate molecules of defined structures, useful in investigating the role of carbohydrates as recognition elements on cell surfaces. They are especially useful in producing donor substrates (e.g. GDP-fucose) in reactions of a **glycosyltransferase**. (II) can also be used to raise antibodies for detecting (II). Oligonucleotides hybridizing to (I) are also new. (33pp)

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FILE 'MEDLINE, HCAPLUS, BIOSIS, EMBASE, BIOTECHDS' ENTERED AT 11:06:07 ON 30 SEP 2004

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L1          230 S (GA1K OR GALT OR GAIU OR PYKF OR NDK OR PPK OR ACK OR POXB OR
L2          153 DUP REM L1 (77 DUPLICATES REMOVED)
L3           26 S L2 AND VECTOR?
L4            8 S L3 AND 1985-2000/PY
L5           10 S L3 AND 1985-2001/PY
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-2.80	-2.80

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